



Gulf of Mexico Harmful Algal Bloom Bulletin

18 January 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: January 16, 2007

Conditions Report

A harmful algal bloom has been identified in patches from northern Sarasota to central Collier County and north of the Lower Florida Keys in Monroe County. Patchy low impacts are possible today through Sunday in Sarasota and Charlotte Counties. Patchy very low impacts are possible today through Sunday for northern Lee and central Collier County. No impacts are expected in southern Lee and northern Collier County. Patchy moderate impacts are possible today through Saturday and patchy very low impacts are possible Sunday on the gulf side of the Lower Keys.

Analysis

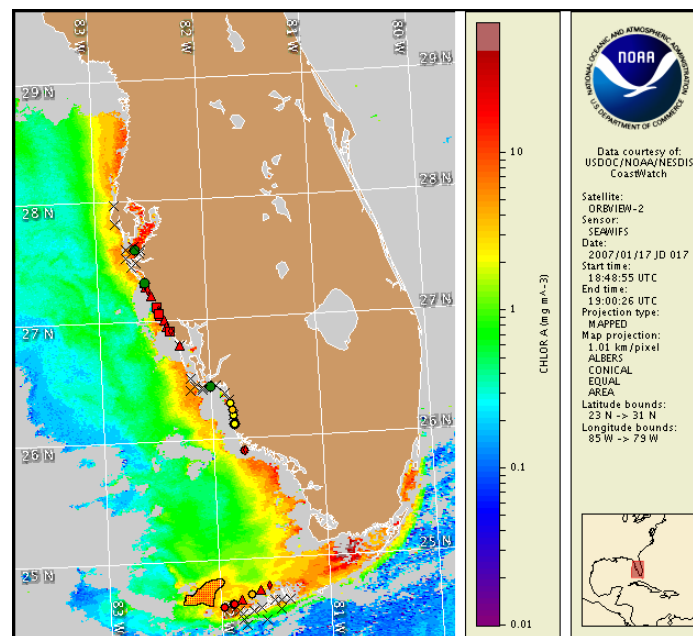
The harmful algal bloom persists from northern Sarasota to central Collier County. Recent sampling confirms the presence of *K. brevis* at medium concentrations in Sarasota and northern Lee County (FWRI, 1/15-16) and high levels of *K. brevis* at Gasparilla Pass, Charlotte County (FWRI, 1/15). In southern Lee County, recent sampling indicates no *K. brevis* (FWRI, 1/15). Satellite imagery (1/17) is obscured alongshore from Sarasota to Monroe County except for a portion alongshore northern Lee County (west of North Captiva and Captiva Islands) where chlorophyll levels are as high as 6 $\mu\text{g/L}$. Reports of fish kills in have been received from Sarasota County over the past few days. Offshore winds today through Sunday will minimize impacts at the coast; however, conditions are favorable for bloom intensification Saturday and Sunday.

The harmful algal bloom persists north of the Lower Florida Keys in Monroe County. Comparisons of satellite imagery indicate that a patch of elevated chlorophyll (up to 6 $\mu\text{g/L}$) located approximately 20 mi. north of Key West in the Lower Florida Keys (1/6) has migrated westward past the Marquesas Keys (1/17) and is now centered about 24°44.3'N 82°13.2'W. Recent sampling inside the Lower Florida Keys indicates not present levels of *K. brevis* (FWRI, 1/16). Continued sampling north of the Lower Keys as well as in the elevated chlorophyll patch is recommended. Onshore winds today through Saturday will increase the potential for impacts on the gulf-side of the Lower Keys. Continued westerly transport of the bloom is possible through Sunday.

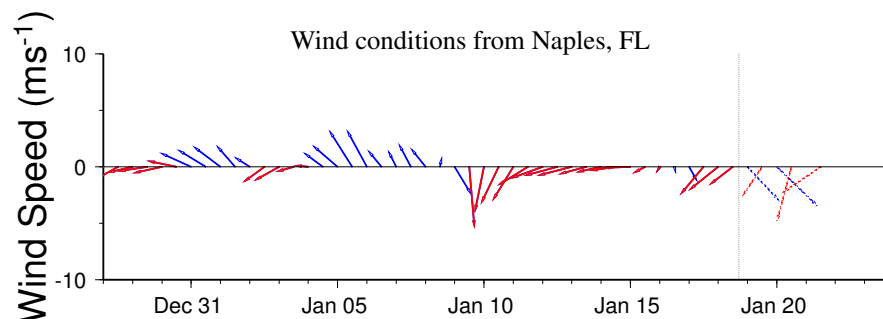
Urizar, Fisher

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.



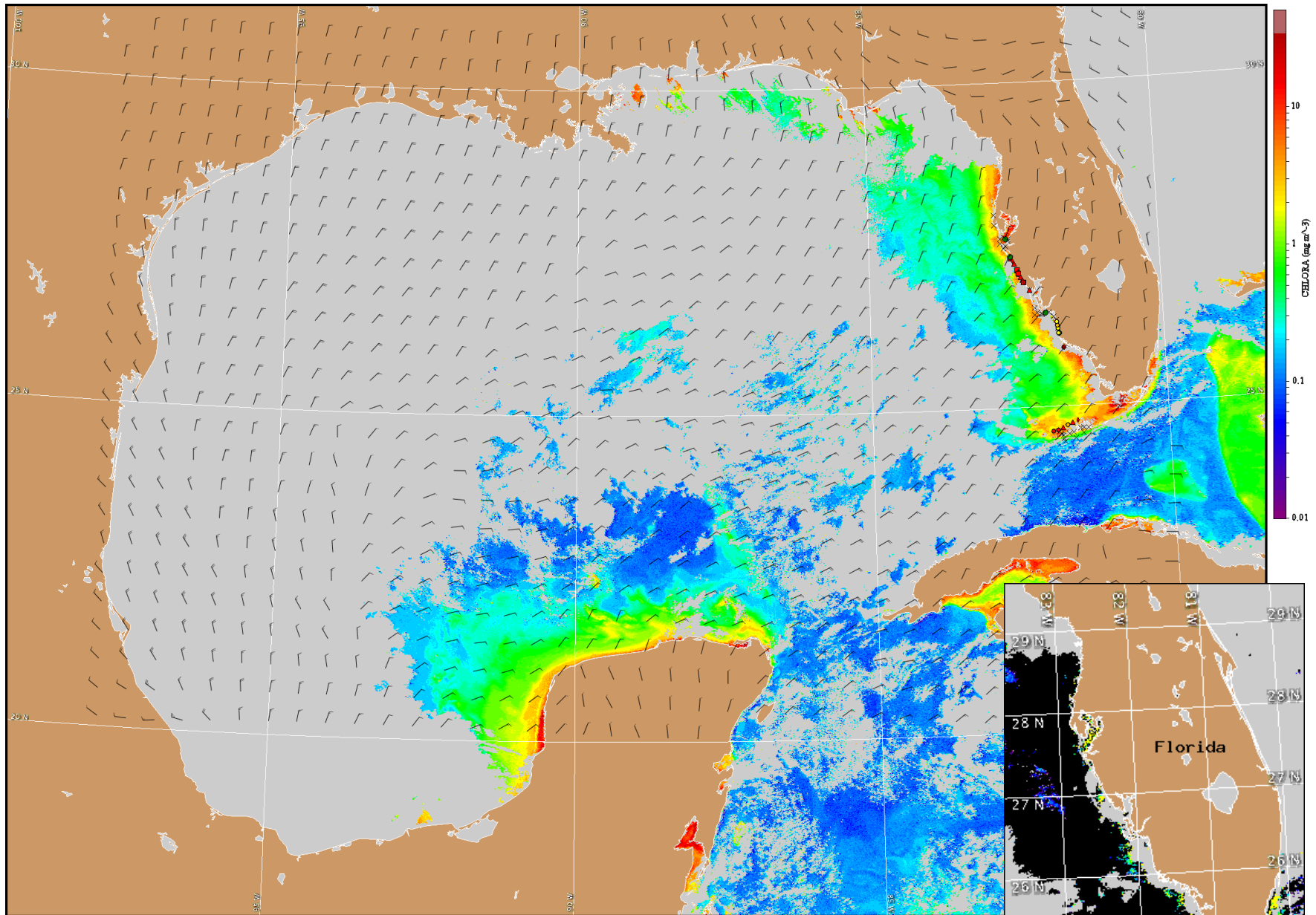
Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration categories and corresponding cell count values from Florida Fish and Wildlife Research Institute. For a key to the cell concentration descriptions, visit <http://research.myfwc.com>. Cell concentration sampling data from January 8-16 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: Northeasterly winds today (10-15 kts, 5-8 m/s). Northerly winds tonight and Friday (10-20 kts, 5-10 m/s). Northeasterly to easterly winds Saturday (10-20 kts, 5-10 m/s). Southeasterly winds Sunday (15 kts, 8 m/s).

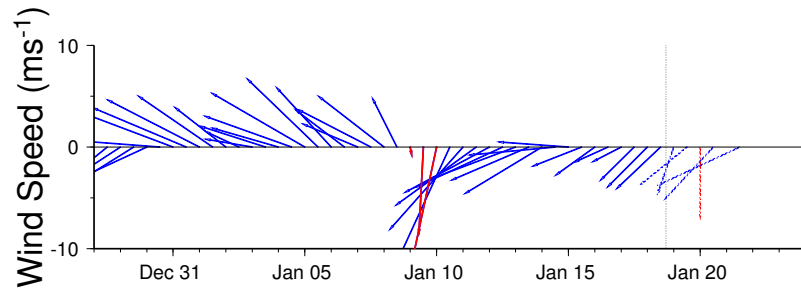
Lower Keys: Northeasterly to easterly winds today (10 kts, 5 m/s). Northerly to North-easterly winds Friday (10-15 kts, 5-8 m/s). Northeasterly to easterly winds Saturday (15 kts, 8 m/s). Southeasterly winds Sunday (10-15 kts, 5-8 m/s).



Satellite chlorophyll image and forecast winds for January 19, 2007 12Z with cell concentration sampling data from January 8-16 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Verified HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Sand Key, FL



Wind conditions from Venice Pier, FL

